

**Table 11-16. Estimated Annualized Benefits of Revised CAFO Regulations
(1999 dollars, millions)**

Regulatory Scenario	Recreational and Non-use Benefits	Reduced Fish Kills	Improved Shellfishing	Reduced Private Well Contamination
Nitrogen- Scenario 1	\$4.9	\$0.1 - \$0.2	\$0.1 - \$1.8	\$33.3 - \$49.0
Nitrogen- Scenario 2/3	\$6.3	\$0.1 - \$0.3	\$0.2 - \$2.4	\$33.3 - \$49.1
Nitrogen- Scenario 4a	\$5.5	\$0.1 - \$0.3	\$0.2 - \$2.2	\$35.5 - \$52.2
Nitrogen- Scenario 4b	\$7.2	\$0.1 - \$0.3	\$0.2 - \$2.6	\$35.5 - \$52.2
Phosphorus- Scenario 1	\$87.6	\$0.2 - \$0.3	\$0.2 - \$2.1	\$35.4 - \$52.1
Phosphorus- Scenario 2/3*	\$127.1	\$0.2 - \$0.4	\$0.2 - \$2.7	\$35.4 - \$52.1
Phosphorus- Scenario 4a*	\$108.5	\$0.2 - \$0.4	\$0.2 - \$2.4	\$36.6 - \$53.9
Phosphorus- Scenario 4b	\$145.0	\$0.2 - \$0.4	\$0.2 - \$3.0	\$36.6 - \$53.9

*proposed scenarios

Table 11-17. Summary of Annualized Benefits (1999 dollars, millions)

Regulatory Scenario	Discount Rates					
	3 Percent		5 Percent		7 Percent	
	Low	High	Low	High	Low	High
Nitrogen-Scenario 1	\$54.1	\$55.9	\$45.0	\$46.9	\$38.4	\$40.2
Nitrogen-Scenario 2/3	\$55.7	\$58.0	\$46.6	\$48.9	\$39.9	\$42.3
Nitrogen-Scenario 4a	\$58.0	\$60.2	\$48.3	\$50.5	\$41.2	\$43.4
Nitrogen-Scenario 4b	\$59.7	\$62.3	\$50.1	\$52.6	\$43.0	\$45.5
Phosphorus-Scenario 1	\$140.0	\$142.1	\$130.4	\$132.4	\$123.3	\$125.4
Phosphorus-Scenario 2/3*	\$179.7	\$182.3	\$170.0	\$172.7	\$163.0	\$165.6
Phosphorus-Scenario 4a*	\$162.8	\$165.1	\$152.8	\$155.2	\$145.5	\$147.9
Phosphorus-Scenario 4b	\$199.4	\$202.2	\$189.4	\$192.2	\$182.1	\$185.0

* Proposed scenarios

XII. Public Outreach

A. Introduction and Overview

EPA has actively involved interested parties to assist it in developing a protective, practical, cost-effective regulatory proposal. EPA has provided many opportunities for input in this rulemaking

process. EPA has met with various members of the stakeholder community on a continuing basis through meeting requests and invitations to attend meetings, conferences, and site visits. These meetings with environmental organizations, agricultural organizations, producer groups, and producers representing various agricultural sectors have allowed EPA to interact with and receive input from stakeholders about the Unified Strategy and the NPDES and effluent limitations regulatory revisions. In addition, EPA convened a Small Business Advocacy Review Panel to address small entity concerns. EPA also sent an outreach package to and met with several national organizations representing State and local governments. More detailed information on EPA's public outreach is provided in the rulemaking record.

B. Joint USDA/EPA Unified AFO Strategy Listening Sessions

In the fall of 1998, EPA and USDA announced eleven public outreach meetings designed to allow public comment on the Draft Unified National AFO Strategy. The meetings were held in the following cities: Tulsa, Oklahoma; Harrisburg, Pennsylvania; Ontario, California; Madison, Wisconsin; Seattle, Washington; Des Moines, Iowa; Chattanooga, Tennessee; Indianapolis, Indiana; Fort Worth, Texas; Denver, Colorado; and Annapolis, Maryland. Each meeting included a pre-meeting among state and regional officials, EPA, and USDA representatives to discuss the draft strategy and the issues posed by CAFOs in general. All participants in the public sessions, including numerous small entities, were given the opportunity to sign up and provide their comments to a panel consisting of EPA, USDA, and local representatives. Many of the commenters made points or raised issues germane to small entities. A transcript of these comments was used by EPA and USDA in developing the final Unified National AFO Strategy. These comments and concerns have been considered by EPA in the development of the revised NPDES CAFO regulations. The transcripts of these meetings are available on the OWM Web Site (www.epa.gov/owm/afo.htm) and are available in the record.

C. Advisory Committee Meeting

EPA was invited to meet with the Local Government Advisory Committee, Small Community Advisory Subcommittee on September 8, 1999. At this Federal Advisory Committee Act meeting, EPA described the CAFO regulatory revisions being considered, and responded to questions concerning the effect of EPA's regulatory actions on small communities. While the CAFO regulations do not directly affect small communities, AFOs do have an effect on local economies and on the local environment. Thus, how they are regulated (or not regulated) has implications for local governments. EPA is keeping local government concerns in mind as it proceeds with the CAFO regulatory revisions and general public outreach activities.

D. Farm Site Visits

EPA conducted approximately 110 site visits to collect information about waste management practices at livestock and poultry operations. Agency staff visited a wide range of operations, including those demonstrating centralized treatment or new and innovative technologies. EPA staff visited

livestock and poultry operations throughout the United States, the majority of which were chosen with the assistance of the leading industry trade associations and also by the Natural Resources Defense Council, the Clean Water Network, university experts, State cooperative and extension agencies, and state and EPA regional representatives. EPA also attended USDA-sponsored farm tours, as well as tours offered at industry, academic, and government conferences. Details on these visits are provided in the rulemaking record.

EPA staff visited cattle feeding operations in Texas, Oklahoma, Kansas, Colorado, California, Indiana, Nebraska, and Iowa, as well as veal operations in Indiana. The capacities of the beef feedlots varied from 500 to 120,000 head. EPA also visited dairies in Pennsylvania, Florida, California, Colorado, and Wisconsin, with the total mature dairy cattle at the operations ranging from 40 to 4,000 cows. In addition, EPA visited broiler, layer and turkey facilities in Georgia, Arkansas, North Carolina, Virginia, West Virginia, Maryland, Delaware, Pennsylvania, Ohio, Indiana, and Wisconsin. EPA visited hog facilities in North Carolina, Ohio, Iowa, Minnesota, Texas, Colorado, Oklahoma, and Utah.

E. Industry Trade Associations

Throughout regulatory development, EPA has worked with representatives from the national trade groups, including: National Cattlemen's Beef Association (NCBA); American Veal Association (AVA); National Milk Producers Federation (NMPF); Professional Dairy Heifers Growers Association (PDHGA); Western United Dairymen (WUD); National Pork Producers Council (NPPC); United Egg Producers and United Egg Association (UEP/UEA); National Turkey Federation (NTF); and the National Chicken Council (NCC). All of the above organizations have provided assistance by helping with site visit selection, submitting supplemental data, reviewing descriptions of the industry and waste management practices, and participating in and hosting industry meetings with EPA.

F. CAFO Regulation Workgroup

EPA established a workgroup that included representatives from USDA and seven states, as well as EPA Regions and headquarters offices. The workgroup considered input from stakeholders and developed the regulatory options presented in today's proposal.

G. Small Business Advocacy Review Panel

1. Summary of Panel Activities

To address small business concerns, EPA's Small Business Advocacy Chairperson convened a Small Business Advocacy Review (SBAR) Panel under section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA). Participants included representatives of EPA, the Small Business Administration (SBA) and the Office of Management and Budget (OMB). "Small Entity Representatives" (SERs), who advised the Panel, included small livestock and poultry producers as well as representatives of the major commodity and

agricultural trade associations. Information on the Panel's proceedings and recommendations is in the *Final Report of the Small Business Advocacy Review Panel on EPA's Planned Proposed Rule on National Pollutant Discharge Elimination System (NPDES) and Effluent Limitations Guideline (Effluent Guidelines) Regulations for Concentrated Animal Feeding Operations* (hereinafter called the "Panel Report"), along with other supporting documentation included as part of the Panel process. This information can be found in the rulemaking record.

Prior to convening a SBAR Panel, EPA distributed background information and materials to potential SERs on September 3, 1999 and September 9, 1999. On September 17, 1999, EPA held a conference call from Washington, D.C. which served as a pre-panel forum for small business representatives to provide input on key issues relating to the proposed regulatory changes to the "CAFO Rule." Twenty-seven small business representatives from the beef, dairy, swine, poultry, and exotic animal livestock industries participated in the conference call. A summary of the conference call is included in the Panel Report. Following the conference call, 19 of the 41 small business advisors and national organizations invited to participate on the conference call submitted written comments. These written comments are included in the Panel Report.

The SBAR Panel for the "CAFO Rule" was formally convened on December 16, 1999. On December 28, 1999, the Panel distributed an outreach package to the final group of SERs, which included many of the participants in EPA's September 17, 1999 outreach conference call. The package included: a SER outreach document, which provided a definition of a small business and described those entities most likely to be affected by the rule; an executive summary of EPA's cost methodology; regulatory flexibility alternatives; a cost methodology overview for the swine, poultry, beef, and dairy sectors; a cost annualization approach; and a list of questions for SERs. Additional modeling information was also sent to SERs on January 7, 2000 and January 10, 2000. A complete list of these documents can be found in the Panel Report; all information sent to the SERs is included in the record.

The SERs were asked to review the information package and provide verbal comments to the Panel during a January 5, 2000 conference call, in which 22 SERs participated. During this conference call, SERs were also encouraged to submit written comments. SERs were given an additional opportunity to make verbal comments during a second conference call held on January 11, 2000, in which 20 SERs participated. During both conference calls, SERs were asked to comment on the costs and viability of the proposed alternatives under consideration by EPA. A summary of both conference calls can be found in the Panel Report. Following the calls, the Panel received 20 sets of written comments from 14 SERs. A complete set of these comments is included in the Panel Report.

2. Summary of Panel Recommendations

A full discussion of the comments received from SERs and Panel recommendations is included in the Panel Report. The major issues summarized are as follows.

a. Number of Small Entities

The Panel reviewed EPA's methodology to develop its estimate of the small entities to which the proposed rule will likely apply. EPA proposed two alternative approaches to estimate the number of small businesses in these sectors. Both approaches identify small businesses in these sectors by equating SBA's annual revenue definition with the number of animals at an operation and estimate the total number of small businesses in these sectors using farm size distribution data from USDA. One approach equates SBA's annual revenue definition with operation size using farm revenue data, as described in Section X.J.2 of this document. Another approach equates SBA's annual revenue definition with the operation size using a modeling approach developed by EPA that calculates the amount of livestock revenue at an operation based market data, including the USDA-reported price received by producers, average yield, and the number of annual marketing cycles. (Additional information on this latter approach is in the rulemaking record.)

During the Panel process, and following formal consultation with SBA, the Panel participants agreed to use the first approach to estimate the number of small businesses in these sectors. More details on this approach is provided in Section X.J.2 and in Section 9 of the *Economic Analysis*. More detail on the Panel's deliberation of the approach used to determine the number of small businesses is provided Sections 4 and 5 of the Panel Report and in other support documentation developed during the SBAR Panel process. The Panel noted that the revised methodology may not accurately portray actual small businesses in all cases across all sectors. The Panel also recognized that, under this small business definition, EPA would be regulating some small facilities, but urged EPA to consider the small business impacts of doing so.

b. Potential Reporting, Record Keeping, and Compliance Requirements

Record Keeping Related to Off-Site Transfer of Manure. The Panel reviewed EPA's consideration of record keeping and reporting requirements in connection with off-site transfer of manure. The Panel recommended that EPA review and streamline the requirements for small entities. In response to this recommendation, EPA is limiting its proposal to keep records of the name and address of the entity to which the CAFO is transferring manure, how much is being transferred and the nutrient content of the manure on-site. This information would allow EPA to track manure, and to follow-up with the third party recipient to ascertain whether the manure was applied in accordance with Clean Water Act requirements that may apply. EPA is also proposing under one co-proposed option that a CAFO obtain a certification from recipients that land application is done in accordance with proper agricultural practices. EPA assumes recipients of manure are mostly field crop producers who already maintain appropriate records relating to nutrient management. EPA is not proposing to establish specific requirements for these offsite recipients.

Permit Application and Certification Requirements. The Panel asked EPA to consider the burden associated with increasing the number of entities subject to permit between 300 AU and 1,000 AU. Furthermore, the Panel recommended that EPA carefully consider appropriate streamlining options

before considering a more burdensome approach. EPA considered several alternative scenarios for the scope of permit coverage of facilities in this size group, and decided to simultaneously co-propose two scenarios, as each offers different means of accomplishing similar environmental outcomes.

The first alternative proposal would retain the current three-tier structure, but would require an operation in the 300-1,000 AU size tier to certify to the permitting authority that it does not meet any of the “risk-based” conditions (described in Section VII), and thus is not required to obtain a permit. The three-tier structure would require all AFOs with 300 AU or more to, at a minimum, obtain a permit nutrient plan and submit a certification to the permit authority. This alternative would provide the permit authority the opportunity to implement effective programs to assist AFOs in order to minimize how many would be required to apply for a permit. Because those certifying would not be CAFOs, however, they would have access to section 319 nonpoint source funds. This co-proposed alternative does not meet one of the goals of today’s proposal, as recommended by the Panel, that is, to simplify the regulations to improve understanding and therefore compliance by the regulated community. Further, the conditions are such that all facilities with 300 AU or more would incur some cost associated with certifying they do not meet any of the conditions. EPA is also requesting comment on a variation of the three-tier structure that was presented to the SERs and generally favorably received by the Panel (see detailed discussion in Section VII.B.3).

The second alternative proposal would adopt a two-tier structure that defines all operations with 500 AU or more as CAFOs. (EPA is also requesting comment on a 750 AU threshold.) This proposal would provide regulatory relief for operations between 300 AU and 500 AU that may be considered CAFOs under the existing regulations. Operations in this size group would not be subject to the certification process and would not incur the costs associated with certification, such as the costs to obtain a certified Permit Nutrient Plan and to submit a certification to the permit authority. Under the two-tier structure, operations with more than 500 AU would all be required to apply for a permit. All facilities with fewer than 500 AU would be subject to permitting as CAFOs only through case-by-case designation based on a finding that the operation is a significant contributor of pollution by the permit authority. This proposal offers simplicity and clarity as to which entities will be subject to the proposed regulations and those that will not, which was recommended by the Panel, as well as indicated by the regulated community as one of the goals of today’s proposal. Representatives of some State programs, however, have indicated that they would prefer an option that allows State non-NPDES programs to address issues at CAFOs in their states, rather than being required to write permits.

EPA is also proposing to provide regulatory relief to small businesses by eliminating the mixed animal calculation. As a result, smaller operations that house a mixture of animal types where none of these animal types independently meets the regulatory threshold are not considered CAFOs under either of today’s proposals, unless they are individually designated. EPA believes that this will provide maximum flexibility for these operations since most are now participating in USDA’s voluntary CNMP program, as outlined in the AFO Strategy. For more information, see discussion in Section VII. A summary of EPA’s economic analysis is provided in Section X.J of this preamble.

Frequency of Testing. The Panel reviewed EPA's consideration of requiring periodic soil testing. The Panel agreed that testing manure and soil at different rates may be appropriate, but expressed concern about the burden of any inflexible testing requirements on small businesses. The Panel recommended that EPA consider leaving the frequency of required testing to the discretion of local permit writers, and request comment on any testing requirements that are included in the proposed rule. The Panel further recommended that EPA weigh the burden of testing requirements to the need for such information.

EPA is proposing to require soil testing of each field every three years and manure testing once per year. The proposed frequency is consistent with standards in many states and also recommendations from agricultural extension services. To ensure that soils have not reached a critical concentration of phosphorus, EPA believes that it is necessary to establish a minimum sampling frequency and testing requirements for all CAFOs, regardless of size. Since it is believed that much of the water pollution from agriculture comes from field runoff, information on manure and soil content is essential for the operator to determine at what rate manure should be applied. EPA believes this information is essential for the permitting authority to know whether the manure is being land applied at proper rates. The local permit writer retains the discretion to require more frequent testing.

Groundwater Requirements Where Linked to Surface Water. The Panel reviewed EPA's consideration of an option that would require groundwater controls at facilities that are determined to have a direct hydrological connection to surface water since there is reasonable potential for discharges to surface water via ground water at these facilities ("Option 3"). Because of the potentially high costs to small operators associated with both making a determination of a hydrologic link and installing controls (such as lagoon liners, mortality composting devices, groundwater monitoring wells, concrete pads, and other technologies), the Panel recommended that EPA examine this requirement, giving careful consideration to the associated small entity impacts, in light of the expected environmental benefits resulting from this option. The Panel further recommended that if EPA decides to propose any such requirements that it consider streamlining the requirements for small entities (e.g., sampling at reduced rates) or exempting them altogether.

(i) *Existing CAFOs.* EPA is proposing to require existing beef and dairy CAFOs to install groundwater controls when the groundwater beneath the production area has a direct hydrologic connection to surface water (Option 3, as described in Section VIII). This includes installation of wells and biannual sampling to monitor for any potential discharge from the production area. CAFOs are also expected to construct concrete pads or impermeable surfaces, as well as install synthetic liners if necessary to prevent discharges to surface water via direct hydrologic connection. The groundwater controls which are part of the proposed BAT requirements are in addition to the land application requirements which ensure that the manure and wastewater application to land owned or controlled by the CAFO is done in accordance with a PNP and does not exceed the nutrient requirements of the soil and crop. EPA has determined that this option represents the best available technology for existing beef and dairy CAFOs and that this requirement is economically achievable under both proposed permitting scenarios (i.e. the two-tier and three-tier structures), although some CAFOs in these sectors may experience increased financial burden. Because the risks from discharged pollutants from groundwater

to surface water are location-specific, EPA believes that the proposed groundwater requirements are necessary at CAFOs where there is a hydrologic connection to surface waters. EPA's is proposing that these requirements are economically achievable by operations that are defined as CAFOs and are also small businesses. The results of EPA's small business analysis is provided in Section X.J of this preamble. Moreover, EPA believes that the estimated benefits in terms of additional groundwater-surface water protections would be significant. EPA's pollution reduction estimates across options are presented in the *Development Document*.

EPA is not proposing BAT requirements for the existing swine, veal and poultry subcategories on the basis of Option 3, i.e., EPA rejected proposing groundwater monitoring and controls in the effluent guidelines for these CAFOs. As described in Section VIII of this preamble, EPA is proposing Option 5 as the best available technology economically achievable, which requires zero discharge from the animal production area with no exception for storm events. Were EPA to add the requirement to control discharges to groundwater that is directly connected to surface waters in addition to the Option 5 requirements, the costs would result in much greater financial impacts to hog and poultry operations. EPA's analysis shows that the full cost of groundwater controls ("Option 3") in addition to requirements under Option 5 would not be economically achievable by operations in these sectors.

(ii) New CAFOs. EPA is proposing to require that all new CAFOs in all subcategories install groundwater controls. EPA expects that requiring groundwater monitoring is affordable to new facilities since these facilities do not face the cost of retrofit. EPA's economic analysis of new facility costs is provided in Section X.F.1(b) of this preamble. More detailed information is provided in the *Economic Analysis* and the *Development Document*.

c. Relevance of Other Federal Rules

The Panel did not note any other Federal rules that may duplicate, overlap, or conflict with the proposed rule.

d. Regulatory Alternatives

The Panel considered a wide range of options and regulatory alternatives for reducing the burden on small business in complying with today's proposal. These included:

Revised Applicability Thresholds. The Panel recommended that EPA give serious consideration to the issues discussed by the Panel when determining whether to establish less stringent effluent limitations guidelines for smaller facilities, and whether to preserve maximum flexibility for the best professional judgement of local permit writers. The Panel also recommended that the Agency carefully evaluate the potential benefits of any expanded requirements for operations with between 300 and 1,000 AU and ensure that those benefits are sufficient to warrant the additional costs and administrative burden that would result for small entities.

EPA is proposing to apply the effluent limitation guidelines to all facilities that are defined as CAFOs, although EPA is also requesting comment on an option under which they would only apply to facilities with greater than 1,000 AUs. Thus, under the three-tier structure all CAFOs with 300 AU or more would be subject to the effluent guidelines. Under the two-tier structure, all CAFOs with 500 AU or more would be subject to the effluent guidelines. EPA is also requesting comment on a 750 AU threshold for the two-tier structure. Under both of the co-proposed alternatives, EPA is proposing to eliminate the “mixed” animal calculation for operations with more than a single animal type for determining which AFOs are CAFOs. As a result, smaller operations that house a mixture of animal types where none of these animal types independently meets the regulatory threshold are not considered CAFOs under today’s proposed rulemaking, unless they are individually designated. EPA believes that this will provide maximum flexibility for these operations since most are now participating in USDA’s voluntary CNMP program, as outlined in the AFO Strategy. For more information, see discussion in Section VII.

EPA’s two-tier proposal provides additional relief to small businesses. Under the two-tier structure, EPA is proposing to establish a regulatory threshold that would define as CAFOs all operations with more than 500 AU. This co-proposed alternative would provide relief to small businesses since this would remove from the CAFO definition operations with between 300 AU to 500 AU that under the current rules are defined as CAFOs. These operations would no longer be defined as CAFOs and may avoid being designated as CAFOs if they take appropriate steps to prevent discharges. In addition, if operations of any size that would otherwise be defined as CAFOs can demonstrate that they have no potential to discharge, they would not need to obtain a permit. Also, under the two-tier structure, EPA is proposing to raise the size standard for defining egg laying operations as CAFOs from 30,000 to 50,000 laying hens. This alternative would remove from the CAFO definition egg operations of this size that under the current rules are defined as CAFOs, if they utilize a liquid manure management system.

EPA believes that revising the regulatory thresholds below 1,000 AU is necessary to protect the environment from CAFO discharges. At the current 1,000 AU threshold, less than 50 percent of all manure and wastewater generated annually would be captured under the regulation. Under the co-proposed alternatives, between 64 percent (two-tier) and 72 percent (three-tier) would be covered. (See Section IV.A of this preamble.) Total pre-tax compliance costs to CAFOs with fewer than 1,000 AU is estimated to range between \$226 million annually (two-tier) to \$298 million annually (three-tier), or about one-third of the total estimated annual costs (see Section X.E.1). EPA believes that the estimated benefits in terms of additional manure coverage justify the estimated costs. EPA estimates that 60 percent (two-tier) to 70 percent (three-tier) of all operations that are defined as CAFOs and are also small businesses are operations with less than 1,000 AU. EPA’s economic analysis, however, indicates that these small businesses will not be adversely impacted by the proposed requirements. EPA’s estimates of the number of small businesses and the results of its economic analysis is provided in Section X.J of this preamble.

Under each co-proposed alternative, EPA is proposing that operations that are not defined as CAFO (i.e., operations with fewer animals than the AU threshold proposed) could still be designated as

CAFOs on a case-by-case basis. During the Panel process, the Panel urged EPA not to consider changing the designation criteria for operations with less than 300 AU. This includes the criterion that the permitting authority must conduct an on-site inspection of any AFO, in making a designation determination. EPA is not proposing to eliminate the on-site inspection requirement. EPA believes it is appropriate to retain the requirement for an on-site inspection before the permitting authority determines that an operation is a “significant contributor of pollution.” No inspection would be required to designate a facility that was previously defined or designated as a CAFO. EPA is, however, requesting comment on whether or not to eliminate this provision or to redefine the term “on-site” to include other forms of site-specific data gathering. In addition, EPA is proposing to delete two criteria, including discharge from manmade device and direct contact with waters of the U.S., as unnecessary to the determination of whether an operation should be designated as a CAFO. EPA is also proposing to clarify EPA’s designation authority in States with NPDES approved programs. For more information, see Section VII.

25-year, 24-hour Storm Event. At the time of SBREFA outreach, EPA indicated to SERs and to the Panel that it was considering removing the exemption, but not changing the design requirement for permitted CAFOs. The Panel expressed concern about removing this exemption for operations with fewer than 1000 AU. The Panel recommended that if EPA removes the exemption, it should fully analyze the incremental costs associated with permit applications for those facilities that are not presently permitted that can demonstrate they do not discharge in less than a 25-year, 24-hour storm event, as well as any costs associated with additional conditions related to land application, nutrient management, or adoption of BMPs that the permit might contain. The Panel recommended that EPA carefully weigh the costs and benefits of removing the exemption for small entities. The Panel also urged EPA to consider reduced application requirements for small operations affected by the removal of the exemption.

EPA is proposing to require that all operations that are CAFOs apply for a permit. EPA is proposing to remove the 25-year, 24-hour storm exemption from the definition of a CAFO. It is difficult to monitor, and removal of this exemption will make the rule simpler and more equitable. However, we are proposing to retain the 25-year, 24-hour storm event as a design standard in the effluent limitation guidelines for certain animal sectors (specifically, the beef and dairy cattle sectors). As a result, operations in these sectors that discharge only in the event of a 25-year, 24-hour storm would not be exempt from being defined as CAFOs, but would be in compliance with their permit as long as they met the 25-year, 24-hour storm design standard. EPA is proposing to establish BAT for the swine, poultry, and veal subcategories on the basis of Option 5 which bans discharge from the production area under any circumstances. The technology basis for this option is covered lagoons, and does not establish a different design standard for these lagoons. Removal of the exemption from the CAFO definition should have no impact on operations that are already employing good management practices. More information is provided in Sections VII and VIII of this document. Prior to proposing to remove this exemption, EPA evaluated the incremental costs associated with permit applications for those facilities that are not presently permitted and other associated costs to regulated small entities. EPA’s economic analysis is provided in Section X.J of this preamble. Estimated costs to the NPDES Permitting Authority

are presented in Section X.G.1. Section X.I presents a comparison of the annualized compliance costs and the estimated monetized benefits.

Manure and Wastewater Storage Capacity. The Panel noted the SERs' concern about the high cost of additional storage capacity and recommended that EPA consider low-cost alternatives in its assessment of best available technologies economically achievable, especially for any subcategories that may include small businesses. The Panel was concerned about the high cost of poultry storage and asked EPA to consider low cost storage. EPA is proposing that facilities may not discharge pollutants to surface waters. To meet this requirement, facilities may choose to construct storage sheds, cover manure, collect all runoff, or any other equally effective combination of technologies and practices. The proposal does not directly impose any minimum storage requirements.

Land Application. The Panel recommended that EPA continue to work with USDA to explore ways to limit permitting requirements to the minimum necessary to deal with threats to water quality from over-application and to define what is "appropriate" land application, consistent with the agricultural stormwater exemption. The Panel recommended that EPA consider factors such as annual rainfall, local topography, and distance to the nearest stream when developing any certification and/or permitting requirements related to land application. The Panel also noted the high cost of P-based application relative to N-based application, and supported EPA's intent to require the use of P-based application rates only where necessary to protect water quality, if at all, keeping in mind its legal obligations under the CWA. The Panel recommended that EPA consider leaving the determination of whether to require the use of P-based rates to the permit writer's discretion, and continue to work with USDA in exploring such an option.

EPA recognizes that the rate of application of the manure and wastewater is a site-specific determination that accounts for the soil conditions at a CAFO. Depending on soil conditions at the CAFO, EPA is proposing to require that the operator apply the manure and wastewater either according to a nitrogen-standard or, where necessary, on a phosphorus-standard. If the soil phosphorus levels in a region are very high, the CAFO would be prohibited from applying any manure or wastewater. EPA believes that this will improve water quality in some production regions where the amount of phosphorus in animal manure and wastewater being generated exceeds crop needs and has resulted in a phosphorus build-up in the soils in those regions. Evidence of manure-phosphorus generation in excess of crop needs is reported in analyses conducted by USDA. Other data show that larger operations tend to have less land to land apply manure nutrients that are generated on-site. EPA believes that each of the co-proposed alternatives establish a regulatory threshold that ensures that those operations with limited land on which to apply manure are permitted. Under the three-tier structure, EPA is proposing risk conditions that would require nutrient management (i.e., PNPs) at operations with 300 to 1,000 AU. In addition, EPA is proposing under one co-proposed option to require letters of certification be obtained from off-site recipients of CAFO manure. Operations that are not defined as CAFOs, but that are determined to be a "significant contributor of pollution" by the permit authority, may be designated as CAFOs.

EPA is proposing a method for assessing whether phosphorus-based application is necessary that is consistent with USDA's policy on nutrient management. In all other areas, a nitrogen-based application rate would apply. EPA's proposal grants flexibility to the states in determining the appropriate basis for land application rates. EPA will continue to work with USDA to evaluate appropriate measures to distinguish proper agricultural use of manure.

Co-Permitting. The Panel reviewed EPA's consideration of requiring corporate entities that exercise substantial operational control over a CAFO to be co-permitted. The Panel did not reach consensus on this issue. The Panel was concerned that any co-permitting requirements may entail additional costs and that co-permitting cannot prevent these costs from being passed on to small operators, to the extent that corporate entities enjoy a bargaining advantage during contract negotiations. The Panel thus recommended that EPA carefully consider whether the potential benefits from co-permitting warrant the costs particularly in light of the potential shifting of those costs from corporate entities to contract growers. The Panel also recommended that if EPA does require co-permitting in the proposed rule, EPA consider an approach in which responsibilities are allocated between the two parties such that only one entity is responsible for compliance with any given permit requirement. This would be the party that has primary control over that aspect of operations. Flexibility could also be given to local permit writers to determine the appropriate locus of responsibility for each permit component. Finally, the Panel recommended that if EPA does propose any form of co-permitting, it address in the preamble both the environmental benefits and any economic impacts on small entities that may result and request comment on its approach. If EPA does not propose a co-permitting approach, the Panel recommended that EPA discuss the strengths and weaknesses of this approach and request comment on it.

EPA is proposing in the rule to clarify that co-permitting is appropriate where a corporate or other entity exercises substantial operational control over a CAFO. Data show that some corporations concentrate growers geographically, thus producing a high concentration of nutrients over a limited area. EPA is leaving to the States decisions on how to structure co-permitting. A discussion of the strength and weaknesses of co-permitting is contained in Section VII.C.5 with several solicitations of comment. EPA is also soliciting comment on an Environmental Management System as a sufficient program to meet co-permitting requirements. Please refer to Section VII.C.5 for further discussion of Environmental Management Systems.

CNMP Preparer Requirements. The Panel reviewed EPA's consideration of requiring permittees to have CNMPs (Comprehensive Nutrient Management Plans) developed by certified planners. The Panel recommended that EPA work with USDA to develop low cost CNMP development services or allow operators to write their own plans. The Panel was concerned about the cost of having a certified planner develop the plans and urged EPA to continue to coordinate with other federal, state and local agencies in the provision of low-cost CNMP development services, and should facilitate operator preparation of plans by providing training, guidance and tools (e.g., computer programs).

EPA is proposing that CAFOs, regardless of size, have certified Permit Nutrient Plans (PNPs) that will be enforceable under the permit. The proposal states that USDA's *Technical Guidance for Developing CNMPs* may be used as a template for developing PNPs. EPA believes that USDA documentation and standards will be appropriate for use as the primary technical references for developing PNPs at CAFOs. In the proposal, EPA has identified certain practices that would be required elements of PNPs in order to protect surface water from CAFO pollutant discharges. These practices are consistent with some of the practices recommended in USDA's CNMP guidance; however, the PNP would not need to include all of the practices identified in the USDA guidance. As an enforceable part of the permit, the PNP would need to be written either by a certified planner or by someone else and reviewed and approved by a certified planner. EPA believes it is essential that the plans be certified by agriculture specialists because the permit writer will likely rely to a large extent on their expertise. The plans would need to be site specific and meet the requirements outlined in this rule. EPA is continuing to coordinate with other regulatory agencies and with USDA on the development of these proposed requirements. EPA has concluded that development of the PNP is affordable to small businesses in these sectors and will improve manure management and lead to cost savings at the CAFO. EPA's economic analysis is provided in Section X.J of this preamble. More detailed information on the cost to develop a PNP is in the *Development Document*.

General vs. Individual Permits. The Panel reviewed EPA's consideration of requiring individual permits for CAFOs that meet certain criteria, or increasing the level of public involvement in general permits for CAFOs. The Panel recommended that EPA not expand the use of individual permits for operations with less than 1,000 AU. EPA believes that individual permits may be warranted under certain conditions such as extremely large operations, operations with a history of compliance problems, or operations in environmentally sensitive areas. Accordingly, EPA is co-proposing two options. In one option, each State develops its own criteria, after soliciting public input, for determining which CAFOs would need to have individual rather than general permits. EPA is also coproposing an option that would establish a national criteria for issuing individual permits. The criteria identifies a threshold that represents the largest operations in each sector. (See Section XII for a detailed discussion.)

Immature Animals. The Panel reviewed EPA's consideration to include immature animals for all animal types in determining the total number of animal units at a CAFO. The Panel recommended that EPA count immature animals proportionally to their waste generation. EPA is proposing to continue to account for only the mature animals at operations where all ages of animals are maintained (mostly dairy and hog operations). Once an operation is covered by the existing regulations, however, all manure and wastewater generated by immature animals that are confined at the same operation with mature animals would also be subject to the requirements. EPA is proposing to maintain this requirement because all young animals are not always confined and immature populations vary over time, whereas the mature herd is of a more constant size. Furthermore, the exclusion of immature animals adds to the simplicity we are seeking in this rulemaking. However, EPA is proposing to include immature animals as subject to the regulations only in stand-alone nursery pig and heifer operations. For stand-alone nursery pig operations, EPA is proposing to account for immature animals proportionate to their waste generation, as discussed in Section VIII. Stand-alone heifer operations are included under

the beef subcategory and are subject to the proposed regulations if they confine more than 500 heifers (two-tier) or more than 300 AU, under certain conditions (three-tier).

e. Other Recommendations

Benefits. The Panel recommended that the EPA evaluate the benefits of the selected regulatory options and that EPA carefully evaluate, in a manner consistent with its legal obligations, the relative costs and benefits (including quantified benefits to the extent possible) of each option in order to ensure that the options selected are affordable (including to small farmers), cost-effective, and provide significant environmental benefits. EPA has conducted an extensive benefit analysis of all the options and scenarios considered. The findings of the benefit analysis are found in Section XI of this report. More detailed information is provided in the *Benefits Analysis*. Section X.I presents a comparison of the annualized compliance costs and the estimated monetized benefits.

Estimated Compliance Costs. The Panel recommended that EPA continue to refine the cost models and consider additional information provided. EPA has continued to refine the cost models and has reviewed all information provided to help improve the accuracy of the models. A summary of EPA's cost models is provided in Section X of this preamble. More detailed information is provided in the *Economic Analysis and Development Document* provided in the rulemaking record.

Public Availability of CNMP. The Panel urged EPA to consider proprietary business concerns when determining what to make publicly available. To the extent allowed under the law, EPA should continue to explore ways to balance the operators' concerns over the confidentiality of information that could be detrimental if revealed to the operators' competitors, with the public's interest in knowing whether adequate practices are being implemented to protect water quality. EPA is not requiring CAFOs to submit the PNPs to the permit authority. However, EPA is proposing that the PNPs must be available upon the request of States and EPA. The agencies would make the plans available to the public on request. EPA is proposing to require the operator of a permitted CAFO to make a copy of the PNP cover sheet and executive summary available for public review. EPA is also requesting comment as to whether CAFOs should be able to claim these elements of the PNP as confidential business information and withhold those elements of the PNP from public review on that basis, or alternately, that whether other portions of the PNP should be made available as well.

Dry Manure. The Panel asked EPA to consider the least costly requirements for poultry operations with dry manure management systems. The Panel recommended that in evaluating potential requirements for dry manure poultry operations, EPA consider the effects of any such requirements on small entities. EPA is not mandating a specific storage technology or practice, but is proposing a zero discharge performance standard and a requirement that poultry operations develop and implement a PNP. EPA is also proposing that certain monitoring and recordkeeping requirements would be appropriate. EPA's economic analysis is provided in Section X.J of this preamble. More detailed cost information is provided in the *Development Document*.

Coordination with State Programs. The Panel recommended that EPA consider the impact of any new requirements on existing state programs and include in the proposed rule sufficient flexibility to accommodate such programs where they meet the minimum requirements of federal NPDES regulations. The Panel further recommended that EPA continue to consult with states in an effort to promote compatibility between federal and state programs. EPA has consulted with states. There were seven states represented on the CAFO workgroup (see Section XII.G.1). In addition, EPA asked for comment on the proposed options from nine national associations that represent state and local government officials. (See Section XIII.G.) In conducting its analyses for this rulemaking, EPA accounted for requirements under existing state programs. A summary of EPA's estimated costs to the NPDES Permitting Authority are presented in Section X.G.1 and Section XIII.B.

XIII. Administrative Requirements

A. Executive Order 12866: "Regulatory Planning and Review"

Under Executive Order 12866 [58 FR 51735, October 4, 1993], the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

- (1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order."

It has been determined that this proposed rule is a "significant regulatory action" under the terms of Executive Order 12866. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis for any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a